IN THE CLAIMS

Please amend claims 1-154 as follows:

1. (Amended) A semiconductor comprising:

a micro processing unit;

a vending equipment interface interconnected with said micro processing unit for interconnecting said semiconductor to a vending machine;

an interactive interface interconnected with said micro processing unit, said interactive interface data communicates with a computing platform; and

a plurality of application code executed by said micro processing unit for effectuating at least one of the following: a cashless vending transaction with said vending machine, monitoring or control of said vending machine, or data communication with a remote host computer.

2. (Amended) The semiconductor in accordance with claim 1, wherein said semiconductor further comprises at least one of the following:

a card reader interface interconnected with said micro processing unit;

a flash memory interconnected with said micro processing unit;

a flash memory interface for interconnecting said micro processing unit to flash memory located external to said semiconductor;

a random access memory interconnected with said micro processing unit;

a random access memory interface for interconnecting said micro processing unit to random access memory located external to said semiconductor;

a timekeeper interconnected with said micro processing unit;

a display interface interconnected with said micro processing unit;

a communication interface interconnected with said micro processing unit;

an external peripheral interface interconnected with said micro processing unit;

a real time clock interconnected with said micro processing unit; or

a battery interconnected with said semiconductor to enable retention during power disruptions of at least one of the following: memory, or real time clock settings.

3. (Amended) The semiconductor in accordance with claim 1, wherein said semiconductor is packaged as a module.

4. (Amended) The semiconductor in accordance with claim 1, wherein said vending equipment interface is at least one of the following: a vend machine controller, a bill interface, a coin interface, a mimic MDB interface, a MDB interface, or a DEX interface.

5. (Amended) The semiconductor in accordance with claim 1, wherein said vending equipment interface comprises a UART, said UART being configured to data communicate eight data bits and one address bit in addition to start and stop bits.

6. (Amended) The semiconductor in accordance with claim 5, wherein said semiconductor by way of said UART detects a valid address byte data communicated from said vending machine, said valid address byte indicates data to follow from said vending machine is intended for said semiconductor, upon detecting said valid address byte said semiconductor data communicates with said vending machine.

7. (Amended) The semiconductor in accordance with claim 1, wherein said vending equipment interface is an MDB compliant interface, for interconnecting said semiconductor to said vending machine, said vending machine having an MDB bus.

8. (Amended) The semiconductor in accordance with claim 7, wherein upon said semiconductor receiving data from said MDB interface a one shot MDB MESSAGE RESPONSE timer is set, said one shot MDB MESSAGE RESPONSE timer upon timeout generates an interrupt, said interrupt initiates an MDB message routine, said MDB message routine being executed by said semiconductor, said MDB message routine parses the received data from said MDB interface and initiates an MDB response message.

9. (Amended) The semiconductor in accordance with claim 8, wherein said one shot MDB MESSAGE RESPONSE timer timeout period is configurable and resetable.

10. (Amended) The semiconductor in accordance with claim 8, wherein said one shot MDB MESSAGE RESPONSE timer timeout period is configurable in the range of 0.5 milliseconds to 7 milliseconds.

11. (Amended) The semiconductor in accordance with claim 7, wherein said semiconductor is interconnected to said MDB bus by way of a buffer circuit.

12. (Amended) The semiconductor in accordance with claim 11, wherein said buffer circuit is an opto-isolated circuit.

13. (Amended) The semiconductor in accordance with claim 8, wherein said MDB response message is a plurality of data bytes, said plurality of data bytes having an MDB INTER-BYTE INTERVAL SPACING time period inserted by said semiconductor between each of said plurality of data bytes.

14. (Amended) The semiconductor in accordance with claim 13, wherein said MDB INTER-BYTE INTERVAL SPACING time period is configurable.

15. (Amended) The semiconductor in accordance with claim 1, wherein said vending equipment interface is a DEX compliant interface, for interconnecting said semiconductor to a DEX port.

16. (Amended) The semiconductor in accordance with claim 15, wherein said DEX port is resident in said vending machine.

17. (Amended) The semiconductor in accordance with claim 15, wherein said semiconductor is interconnected to said DEX port by way of a buffer circuit.

18. (Amended) The semiconductor in accordance with claim 1, wherein said vending equipment interface comprises a UART, said UART transmit line is pin level configurable during non-data communication idle states to a high impedance state or a low signal level state.

19. (Amended) The semiconductor in accordance with claim 2, wherein said card reader interface comprises at least one DATA CLOCK line input and at least one DATA-IN input for interfacing a card reader to said semiconductor.

20. (Amended) The semiconductor in accordance with claim 2, wherein said card reader interface is a serial port.

21. (Amended) The semiconductor in accordance with claim 1, wherein said vending machine is at least one of the following types: beverage style vending machines, snack style vending machines, specialty style vending machines, a copier, a fax machine, a personal computer, a data port, a second computing platform, a wireless device, or office equipment.

22. (Amended) The semiconductor in accordance with claim 1, wherein said micro processing unit having data communication access to a memory device implements an MDB TRANSACTION STRING.

23. (Amended) The semiconductor in accordance with claim 22, wherein said MDB TRANSACTION STRING comprises at least one of the following fields: a VEND STATE field, a MAX VEND SALE field, a SALE PRICE field, a COLUMN field, or a VEND FLAG field.

24. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said MDB TRANSACTION STRING data be cleared.

25. (Amended) The semiconductor in accordance with claim 24, wherein the command data communicated by said computing platform to said semiconductor to request said MDB TRANSACTION STRING data be cleared is an @<esc>C command.

26. (Amended) The semiconductor in accordance with claim 23, wherein said VEND STATE field includes at least one of the following characters to indicate a particular MDB state: 'I' for inactive state, 'D' for disable state, 'E' for enable state, 'R' for vend request state, 'S' for in session state, or 'V' for vend state.

27. (Amended) The semiconductor in accordance with claim 23, wherein said MAX VEND SALE field is the value of the highest priced item in said vending machine as reported by said vending machine to said semiconductor during the MDB setup sequence.

28. (Amended) The semiconductor in accordance with claim 23, wherein said SALE PRICE field is the vend sale price of the vend item selected from said vending machine as reported by said vending machine during an MDB vend request message transaction with said semiconductor.

29. (Amended) The semiconductor in accordance with claim 23, wherein said COLUMN field is the column identification of the vend item selected from said vending machine as reported by said vending machine during an MDB vend request message transaction with said semiconductor.

30. (Amended) The semiconductor in accordance with claim 23, wherein said VEND FLAG field includes at least one of the following characters to indicate a particular MDB flag: 'C' for clear flag, '$' for currency vend flag, 'P' for vend pending flag, 'A' for vend approved flag, 'D' for vend declined flag, 'V' for cashless vend occurrence flag, or 'F' for vend fail flag.

31. (Amended) The semiconductor in accordance with claim 1, wherein said semiconductor data communicates with a memory device.

32. (Amended) The semiconductor in accordance with claim 22, wherein said micro processing unit data communicates with said vending machine by way of said vending equipment interface to determine the state of said vending machine, said micro processing unit updates said MDB TRANSACTION STRING to reflect the state of said vending machine.

33. (Amended) The semiconductor in accordance with claim 22, wherein said vending machine is monitored by said computing platform by data communicating with said semiconductor to read said MDB TRANSACTION STRING.

34. (Amended) The semiconductor in accordance with claim 2, wherein said random access memory is nonvolatile.

35. (Amended) The semiconductor in accordance with claim 2, wherein said flash memory interface is an interface to at least one of the following: a serial EEROM, a DATA FLASH, a serial flash memory device, an I2C bus device, or a flash memory device having at least address bus and data bus connections.

36. (Amended) The semiconductor in accordance with claim 2, wherein said external peripheral interface is an interface to at least one of the following: an RFID device, a biometric device, a SPI interface device, a general purpose input output device, a printer, or a keypad.

37. (Amended) The semiconductor in accordance with claim 2, wherein said communication interface is an interface to at least one of the following: a network connection, a TCP/IP connection, a wireless device, a transceiver, a point-to-point device, an RS232 connection, an RS485 interface, an ethernet connection, a TDMA interface, a CDPD interface, a CDMA interface, a WCDMA interface, a 2G compliant interface, a 2.5G compliant interface, a 3G compliant interface, or a modem.

38. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to start a vending session, upon receipt of said command said semiconductor by way for said vending equipment interface data communicates with said vending equipment to begin said vending session.

39. (Amended) The semiconductor in accordance with claim 38, wherein the command data communicated by said computing platform to said semiconductor to start said vending session is at least one of the following: the @<esc>B command, the @<esc>S command, or the @<esc>A command.

40. (Amended) The semiconductor in accordance with claim 39, wherein the @<esc>A command is used to start at least one of the following types of said vending session: a cashless identification activated vend session, a credit card activated vending session, a dial-a-vend activated session, or a VEND APPROVE activated vending session.

41. (Amended) The semiconductor in accordance with claim 40, wherein said cashless identification is at least one of the following: RFID, wireless phone ID, personal data assistant ID, biometric ID, hotel room key card ID, employee ID, personal ID, magnetic card ID, smart card ID, ID stored in an global network based data processing resource, ID accessible by way of a global network, or keypad input ID.

42. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to select a VEND ACTIVE mode.

43. (Amended) The semiconductor in accordance with claim 42, wherein the command data communicated by said computing platform to said semiconductor to select said VEND ACTIVE mode of operation is at least one of the following: an @<esc>Y command to turn ON said VEND ACTIVE mode, or an @<esc>y command to turn OFF said VEND ACTIVE mode.

44. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to select a VERBOSE TEXT PROMPT mode.

45. (Amended) The semiconductor in accordance with claim 44, wherein the command data communicated by said computing platform to said semiconductor to select said VERBOSE TEXT PROMPT mode of operation is at least one of the following: an @<esc>R command to turn ON said VERBOSE TEXT PROMPT mode, or an @<esc>r command to turn OFF said VERBOSE TEXT PROMPT mode.

46. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to select an MDB INTERRUPT mode.

47. (Amended) The semiconductor in accordance with claim 46, wherein the command data communicated by said computing platform to said semiconductor to select said MDB INTERRUPT mode of operation is at least one of the following: an @<esc>I command to turn ON said MDB INTERRUPT mode, or an @<esc>i command to turn OFF said MDB INTERRUPT mode.

48. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request card reader data.

49. (Amended) The semiconductor in accordance with claim 48, wherein the command data communicated by said computing platform to said semiconductor to request card reader data is an @<esc>T command.

50. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request card reader data be cleared from memory.

51. (Amended) The semiconductor in accordance with claim 50, wherein the command data communicated by said computing platform to said semiconductor to request card reader data be cleared from memory is an @<esc>V command.

52. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said

semiconductor to request said semiconductor data communicate MDB TRANSACTION STRING data and card reader data to said computing platform.

53. (Amended) The semiconductor in accordance with claim 52, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate MDB TRANSACTION STRING data and card reader data to said computing platform is an @<esc>H command.

54. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request a vending session previously started be terminated.

55. (Amended) The semiconductor in accordance with claim 54, wherein the command data communicated by said computing platform to said semiconductor to request said vending session previously started be terminated is an @<esc>X command.

56. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to set the VEND STATE field to the INACTIVE state.

57. (Amended) The semiconductor in accordance with claim 56, wherein the command data communicated by said computing platform to said semiconductor to set the VEND STATE field to the INACTIVE state is an @<esc>F command.

58. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to set the VEND STATE field to the DISABLE state.

59. (Amended) The semiconductor in accordance with claim 58, wherein the command data communicated by said computing platform to said semiconductor to set the VEND STATE field to the DISABLE state is an @<esc>D command.

60. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to set the VEND STATE field to the ENABLE state.

61. (Amended) The semiconductor in accordance with claim 60, wherein the command data communicated by said computing platform to said semiconductor to set the VEND STATE field to the ENABLE state is an @<esc>E command.

62. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor perform a hardware reset.

63. (Amended) The semiconductor in accordance with claim 62, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor perform said hardware reset is an @<esc>K command.

64. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor capture MDB bus data being communicated between said semiconductor and said vending machine.

65. (Amended) The semiconductor in accordance with claim 64, wherein the command data communicated by said computing platform to said semiconductor to request said

semiconductor capture MDB bus data being communicated between said semiconductor and said vending machine is an @<esc>1 command.

66. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate captured MDB bus data to said computing platform.

67. (Amended) The semiconductor in accordance with claim 66, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate captured MDB bus data to said computing platform is an @<esc>2 command.

68. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor simulate a cash vend transaction.

69. (Amended) The semiconductor in accordance with claim 68, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor simulate said cash vend transaction is an @<esc>$ command.

70. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor simulate a cashless vend transaction.

71. (Amended) The semiconductor in accordance with claim 70 wherein, the command data communicated by said computing platform to said semiconductor to request said semiconductor simulate said cashless vend transaction is an @<esc># command.

72. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor establish a data communication path to enable said computing platform to data communicate with a remote location by way of said communication interface.

73. (Amended) The semiconductor in accordance with claim 72, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor establish said data communication path to enable said computing platform to data communicate with a remote location by way of said communication interface is an @<esc>M command.

74. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate the current transaction record to said computing platform.

75. (Amended) The semiconductor in accordance with claim 74, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate the current transaction record to said computing platform is an @<esc>Q command.

76. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate all transaction records to said computing platform.

77. (Amended) The semiconductor in accordance with claim 76, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate all transaction records to said computing platform is an @<esc>W command.

78. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor restore default conditions.

79. (Amended) The semiconductor in accordance with claim 77, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor restore default conditions is an @<esc>U command.

80. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate a time and date stamp message to said computing platform.

81. (Amended) The semiconductor in accordance with claim 80, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate said time and date stamp message to said computing platform is an @<esc>P command.

82. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate with a printer.

83. (Amended) The semiconductor in accordance with claim 82, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate with said printer is an @<esc>G command.

84. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor clear memory.

85. (Amended) The semiconductor in accordance with claim 84, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor clear memory is an @<esc>J command.

86. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor find a blank record in memory.

87. (Amended) The semiconductor in accordance with claim 86, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor find said blank record in memory is an @<esc>N command.

88. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate USALIVE configuration data to said computing platform.

89. (Amended) The semiconductor in accordance with claim 88, wherein the command data communicated by said computing platform to said semiconductor to request said

semiconductor data communicate USALIVE configuration data to said computing platform is an @<esc>L command.

90. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor initiate a DEX data capture from said vending machine.

91. (Amended) The semiconductor in accordance with claim 90, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor initiate said DEX data capture from said vending machine is at least one of the following: an @<esc>3 command, or an @<esc>4 command.

92. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate captured DEX data to said computing platform.

93. (Amended) The semiconductor in accordance with claim 92, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate captured DEX data to said computing platform is an @<esc>5 command.

94. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor perform a system initialization.

95. (Amended) The semiconductor in accordance with claim 94, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor perform system initialization is an #<esc>D command.

96. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate to said computing platform said semiconductor serial number and firmware version information.

97. (Amended) The semiconductor in accordance with claim 96, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate to said computing platform said semiconductor serial number and firmware version information is an #<esc>E command.

98. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor set the CALL HOME flag.

99. (Amended) The semiconductor in accordance with claim 98, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor set the CALL HOME flag is an #<esc>F command.

100. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate to said computing platform the state of the CALL HOME flag.

101. (Amended) The semiconductor in accordance with claim 100, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate to said computing platform the state of the CALL HOME flag is an #<esc>G command.

102. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor clear a CALL HOME flag.

103. (Amended) The semiconductor in accordance with claim 102, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor clear said CALL HOME flag is an #<esc>H command.

104. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate said semiconductor service state to said computing platform.

105. (Amended) The semiconductor in accordance with claim 104, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate said semiconductor service state to said computing platform is an #<esc>I command.

106. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor toggle the service state of said semiconductor.

107. (Amended) The semiconductor in accordance with claim 106, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor toggle the service state of said semiconductor is an #<esc>J command.

108. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate to said computing platform a CURRENT LOCAL AUTHORIZATION RECORD.

109. (Amended) The semiconductor in accordance with claim 108, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate to said computing platform said CURRENT LOCAL AUTHORIZATION RECORD is an #<esc>K command.

110. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate to said computing platform a COMPLETE LOCAL AUTHORIZATION DATABASE.

111. (Amended) The semiconductor in accordance with claim 110, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate to said computing platform said COMPLETE LOCAL AUTHORIZATION DATABASE is an #<esc>L command.

112. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor clear APPROVAL card records in a LOCAL AUTHORIZATION DATABASE.

113. (Amended) The semiconductor in accordance with claim 112, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor clear APPROVAL card records in said LOCAL AUTHORIZATION DATABASE is an #<esc>N command.

114. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor initiate DEX query mode inquiry of said vending machine.

115. (Amended) The semiconductor in accordance with claim 114, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor initiate DEX query mode inquiry of said vending machine is an #<esc>O command.

116. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor clear CALL-IN flags.

117. (Amended) The semiconductor in accordance with claim 116, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor clear CALL-IN flags is an #<esc>P command.

118. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor issue a VEND DECLINED response to said vending machine.

119. (Amended) The semiconductor in accordance with claim 118, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor issue said VEND DECLINED response to said vending machine is an #<esc>Q command.

120. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to select a VEND ASSIST mode.

121. (Amended) The semiconductor in accordance with claim 120, wherein the command data communicated by said computing platform to said semiconductor to select said VEND ASSIST mode of operation is at least one of the following: an #<esc>R command to turn ON said VEND ASSIST mode, or an #<esc>r command to turn OFF said VEND ASSIST mode.

122. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to indicate a user interaction.

123. (Amended) The semiconductor in accordance with claim 122, wherein the command data communicated by said computing platform to said semiconductor to indicate said user interaction is at least one of the following: the AAA command, or the BBB command.

124. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate to said computing

platform data stored at a memory location, said memory location being accessible by said semiconductor.

125. (Amended) The semiconductor in accordance with claim 124, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate to said computing platform data stored at said memory location, said memory location being accessible by said semiconductor includes a MEMORY CODE field and a MEMORY LOCATION field.

126. (Amended) The semiconductor in accordance with claim 125, wherein said MEMORY CODE field is at least one of the following: a 'A' denoting EEROM upper word byte, a 'B' denoting EEROM lower word byte, a 'C' denoting main flash memory, or a 'D' denoting main random access memory.

127. (Amended) The semiconductor in accordance with claim 124, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate to said computing platform data stored at a memory location, said memory location being accessible by said semiconductor is an @<esc>A command.

128. (Amended) The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor write data to a memory location, said memory location being accessible by said semiconductor.

129. (Amended) The semiconductor in accordance with claim 128, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor write data to said memory location, said memory location being accessible

by said semiconductor includes a MEMORY CODE field, a MEMORY LOCATION field, and a BYTE OF DATA field.

130. (Amended) The semiconductor in accordance with claim 129, wherein said MEMORY CODE field is at least one of the following: a 'A' denoting EEROM upper word byte, a 'B' denoting EEROM lower word byte, a 'C' denoting main flash memory, or a 'D' denoting main random access memory.

131. (Amended) The semiconductor in accordance with claim 128, wherein the command data communicated by said computing platform to said semiconductor to request said semiconductor data communicate to said computing platform data stored at said memory location, said memory location being accessible by said semiconductor is an @<esc>A command.

132. (Amended) A semiconductor implementing an interactive interface communication protocol with a computing platform, said semiconductor comprising:

a micro processing unit;

a vending equipment interface interconnected with said micro processing unit for interconnecting said semiconductor to a vending machine;

an interactive interface interconnected with said micro processing unit, said interactive interface data communicates with said computing platform, wherein data communication between said semiconductor and said computing is in accordance with said interactive interface communication protocol; and

a plurality of application code executed by said micro processing unit for effectuating at least one of the following: a cashless vending transaction with said vending machine, monitoring or control of said vending machine, or data communication with a remote host computer.

133. (Amended) The semiconductor in accordance with claim 132, wherein said semiconductor further comprises at least one of the following:

a card reader interface interconnected with said micro processing unit;

a flash memory interconnected with said micro processing unit;

a flash memory interface for interconnecting said micro processing unit to flash memory located external to said semiconductor;

a random access memory interconnected with said micro processing unit;

a random access memory interface for interconnecting said micro processing unit to random access memory located external to said semiconductor;

a timekeeper interconnected with said micro processing unit;

a display interface interconnected with said micro processing unit;

a communication interface interconnected with said micro processing unit;

an external peripheral interface interconnected with said micro processing unit;

a real time clock interconnected with said micro processing unit; or

a battery interconnected with said semiconductor to enable retention during power disruptions of at least one of the following: memory, or real time clock settings.

134. (Amended) The semiconductor in accordance with claim 132, wherein said semiconductor is packaged as a module.

135. (Amended) The semiconductor in accordance with claim 132, wherein said vending equipment interface is at least one of the following: a vend machine controller, a bill interface, a coin interface, a mimic MDB interface, a MDB interface, or a DEX interface.

136. (Amended) The semiconductor in accordance with claim 132, wherein said vending equipment interface comprises a UART, said UART being configured to data communicate eight data bits and one address bit in addition to start and stop bits.

137. (Amended) The semiconductor in accordance with claim 136, wherein said semiconductor by way of said UART detects a valid address byte data communicated from said vending machine, said valid address byte indicates data to follow from said vending machine is intended for said semiconductor, upon detecting said valid address byte said semiconductor data communicates with said vending machine.

138. (Amended) The semiconductor in accordance with claim 132, wherein said vending equipment interface is an MDB compliant interface, for interconnecting said semiconductor to said vending machine, said vending machine having an MDB bus.

139. (Amended) The semiconductor in accordance with claim 138, wherein upon said semiconductor receiving data from said MDB interface a one shot MDB MESSAGE RESPONSE timer is set, said one shot MDB MESSAGE RESPONSE timer upon timeout generates an interrupt, said interrupt initiates an MDB message routine, said MDB message routine being executed by said semiconductor, said MDB message routine parses the received data from said MDB interface and initiates an MDB response message.

140. (Amended) The semiconductor in accordance with claim 139, wherein said one shot MDB MESSAGE RESPONSE timer timeout period is configurable and resetable.

141. (Amended) The semiconductor in accordance with claim 139, wherein said one shot MDB MESSAGE RESPONSE timer timeout period is configurable in the range of 0.5 milliseconds to 7 milliseconds.

142. (Amended) The semiconductor in accordance with claim 138, wherein said semiconductor is interconnected to said MDB bus by way of a buffer circuit.

143. (Amended) The semiconductor in accordance with claim 142, wherein said buffer circuit is an opto-isolated circuit.

144. (Amended) The semiconductor in accordance with claim 139, wherein said MDB response message is a plurality of data bytes, said plurality of data bytes having an MDB

INTER-BYTE INTERVAL SPACING time period inserted by said semiconductor between each of said plurality of data bytes.

145. (Amended) The semiconductor in accordance with claim 144, wherein said MDB INTER-BYTE INTERVAL SPACING time period is configurable.

146. (Amended) The semiconductor in accordance with claim 132, wherein said vending equipment interface is a DEX compliant interface, for interconnecting said semiconductor to a DEX port.

147. (Amended) The semiconductor in accordance with claim 146, wherein said DEX port is resident in said vending machine.

148. (Amended) The semiconductor in accordance with claim 146, wherein said semiconductor is interconnected to said DEX port by way of a buffer circuit.

149. (Amended) The semiconductor in accordance with claim 132, wherein said vending equipment interface comprises a UART, said UART transmit line is pin level configurable during non-data communication idle states to a high impedance state or a low signal level state.

150. (Amended) The semiconductor in accordance with claim 133, wherein said card reader interface comprises at least one DATA CLOCK line input and at least one DATA-IN input for interfacing a card reader to said semiconductor.

151. (Amended) The semiconductor in accordance with claim 133, wherein said card reader interface is a serial port.

152. (Amended) The semiconductor in accordance with claim 132, wherein said vending machine is at least one of the following types: beverage style vending machines, snack style vending machines, specialty style vending machines, a copier, a fax machine, a personal computer, a data port, a second computing platform, or office equipment.

153. (Amended) The semiconductor in accordance with claim 132, wherein said micro processing unit having data communication access to a memory device implements an MDB TRANSACTION STRING in said memory device.

154. (Amended) The semiconductor in accordance with claim 153, wherein said MDB TRANSACTION STRING comprises at least one of the following fields: a VEND STATE field, a MAX VEND SALE field, a SALE PRICE field, a COLUMN field, or a VEND FLAG field.

Respectively Submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on:

JANUARY 7, 2003

H. Brock Kolls